I. THE ELECTRONIC WORKBENCH IS NOT AVAILABLE AS REFERENCE FOR REJECTION OF CLAIMS 1-2 UNDER 35 U.S.C. 102(b) BECAUSE IT TEACHES AWAY FROM THE INSTANT INVENTION

It is well established that a *prima facie* case of obviousness may be rebutted by showing that the reference, in any material respect, teaches away from the claimed invention (In re Geisler, 116 F.3d 1465, 1471, 43 USPQ2d 1362, 1355 (Fed.Cir. 1977). Here, as the discussion below will show, the Electronic Workbench teaches away from the instant invention.

Applicant provides Exhibit "A" with block diagrams (FIG. 1 and FIG. 2), which represent, respectively, the present invention and the circuit simulated by Electronic Workbench. Applicant believes this will assist in understanding of the fundamental differences between the two. Applicant will use the terminology from the Electronic Workbench for the sake of easy comparison.

Viewing FIG. 1 from the left to the right, Function Generator generates Sine Wave 1. Sine Wave 1 is applied to Low Pass Filter at point A, which outputs Degraded Sine Wave 1 on the other end of Low Pass Filter at point B. Also on the other end of Low Pass Filter is another Function Generator which generates Sine Wave 2 identical to Sine Wave 1. Degraded Sine Wave 1 and Sine Wave 2 (identical to Sine Wave 1 before it was degraded by passing through Low Pass Filter) are applied to Means of Synchronization, and then to display device where Sine Wave 2 and Degraded Sine Wave 1 can be compared by viewing their visual representations side by side.

Viewing FIG. 2 from the left to the right, Function Generator generates Sine Wave 1. At point A, Sine Wave 1 is split into two portions. One portion of Sine Wave 1

is applied to Low Pass Filter, which outputs Degraded Sine Wave 1 on the other end of Low Pass Filter at point B, and then applied to Oscilloscope through Input 1 on the right side of FIG. 2. The other portion of Sine Wave 1 is applied directly to Oscilloscope through Input 2 by way of a High Impedance Cable.

Now, for the sake of an argument, Applicant wants to assume that the distance between points A and B is 100 miles. Viewing FIG. 1 from the left to the right, Function Generator generates Sine Wave 1. Sine Wave 1 is applied to Low Pass Filter at point A, which outputs Degraded Sine Wave 1 on the other end of Low Pass Filter at point B (100 miles away). Also on the other end of Low Pass Filter is another Function Generator which generates Sine Wave 2 identical to Sine Wave 1. Degraded Sine Wave 1 and Sine Wave 2 (identical to Sine Wave 1 before it was degraded by passing through 100 miles long Low Pass Filter) are applied to Means of Synchronization, and then to display device where Sine Wave 2 and Degraded Sine Wave 1 can be compared by viewing their visual representations side by side.

Therefore, the present invention allows to compare the original signal from the source (i.e. Sine Wave 1) and the signal in its degraded state as it is applied to the display device (i.e. Degraded Sine Wave 1) regardless of the distance between the source signal and display device (i.e. 100 miles).

In contrast with the present invention, viewing FIG. 2 from the left to the right, Function Generator generates Sine Wave 1. At point A, Sine Wave 1 is split into two portions. One portion of Sine Wave 1 is applied to Low Pass Filter, which outputs Degraded Sine Wave 1 on the other end of Low Pass Filter at point B (100 miles away), and then applied to Oscilloscope through Input 1 on the right side of FIG. 2. The other

portion of Sine Wave 1 is applied directly to Oscilloscope through Input 2 by way of a 100 miles long High Impedance Cable.

It is clear that 100 miles of High Impedance Cable will cause significant degradation to Sine Wave 1, making it impossible to determine the degradation caused by Low Pass Filter by comparing the signals applied to Input 1 and Input 2 on the right side of FIG. 2.

Even though the example of 100 miles between points A and B may seem extreme, in a real life situation, a video signal from a source located in one part of an office building is often fed to a display device located in a conference room far away from the source. The present invention will allow to determine the degradation caused by many feet of cable and other equipment connected in series with cable between the source of the video signal and the display device. The sited reference (no matter how it is modified) will not permit such determination.

It appears therefore that the sited reference (Electronic Workbench) teaches away from the present invention in the following material ways:

1. The reference teaches direct connection of the source signal (i.e. Sine Wave 1) which is not degraded by the circuit (i.e. Low Pass Filter) to the display device (i.e. Oscilloscope) for comparison with the source signal degraded by the circuit (i.e. Degraded Sine Wave 1). This causes the source signal (which is supposed to serve as a reference to evaluate degradation) to be itself degraded by the cable's loading effect (i.e. connecting points A and B). (On the other hand, the present invention is based on the lack of direct connection between the source (reference) signal and the display device for comparison with the degraded signal.)